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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,034	11/30/2000	Gregory J. Conley	3914-02A	3004

27820 7590 02/21/2007
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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/727,034

Applicant(s)

CONLEY, GREGORY J.

Examiner

LUONG T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2007 and 30 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicant has attempted to provoke an interference with U.S. Patent No. 6,154,251. However, an interference will not be declared unless those claims are both supported by the Applicant's disclosure and patentable over the prior art. Since claims 4-30 do not meet these requirements (as detailed below), an interference will not be declared at this time.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/13/2007 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 4-39 filed on 1/30/2007 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-6, 8-10, 12, 14-15, 17, 19-20, 22, 24-26, 28-29, 31-32, 34-35, 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditchburn et al. (U.S. 5184,732) in view of Astle (US 4,698,682).

Regarding claim 4, Ditchburn et al. discloses a system for producing virtual camera motion in a motion picture medium comprising an array of cameras (electronic viewers 5, Figure 1, Column 3, Lines 37-40) deployed along a preselected path with each camera focused on a common scene (a viewing zone, Figure 1, Column 3, Lines 37-40); means for triggering (light curtain 3 triggers a strobe for signaling the electronic viewers 5 simultaneously capture the objects, Figure 1, Column 3, Lines 27-36) each of said cameras to substantially simultaneously record a still image of said scene; means for transferring said still images from said cameras into a digital format (computer 12, Figure 2, Column 4, Lines 26-30); means for transferring said digital data into a time-sequence of frames and means for outputting said time-sequence of frames in a motion picture medium (the sequence of frames in the motion picture medium takes place during the scanning (by scanner 13) of the images of the object taken by electronic viewers 5 (Figure 2, Column 4, Lines 27-28).

The feature "creating the illusion that a single motion picture camera has moved along said path" is recited as a functional language. Since Ditchburn et al. discloses all the structural limitations of the apparatus claimed in claim 12, Ditchburn et al. meets the claim. See MPEP, section 2114.

Ditchburn et al. fails to specifically disclose the time-sequence of frames in a motion picture medium adapted to be viewable by a human. However, Astle teaches an apparatus which

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produces the illusion of motion from a sequence of still images, in which a sequence of images is to be displayed depicting a moving scene (figure 1, column 2, lines 10-20, column 3, line 60 – column 4, line 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. by the teaching of Astle in order to allow an user views a captured scene.

Regarding claim 5, Ditchburn et al. discloses said camera comprises a video camera (electronic viewers 5, Figures 1-2, Column 3, Lines 37-40, Column 4, Lines 12-15) that electronically records said still image as a video frame.

Regarding claim 6, Ditchburn et al. discloses said motion picture medium comprises video storage means (memory 16, Figure 2, Column 4, Line 30).

As for claims 8-10, claims 8-10 are method claims of apparatus claims 4-6; therefore, claims 8-10 are rejected for the reasons given in claims 4-6, respectively.

Regarding claim 12, Ditchburn et al. discloses a system for producing virtual camera motion in a motion picture medium comprising an array of cameras (electronic viewers 5, Figure 1, Column 3, Lines 37-40) deployed along a preselected path with each camera focused on a common scene (a viewing zone, Figure 1, Column 3, Lines 37-40); means for triggering (light curtain 3 triggers a strobe for signaling the electronic viewers 5 simultaneously capture the objects, Figure 1, Column 3, Lines 27-36) each of said cameras to simultaneously record a still

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image of said scene; and means for transferring said still images from said cameras in a preselected order along said path onto a sequence of frames in said motion picture medium (the sequence of frames in the motion picture medium takes place during the scanning (by scanner 13) of the images of the object taken by electronic viewers 5 (Figure 2, Column 4, Lines 27-28).

The feature “creating the illusion that a single motion picture camera has moved along said path” is recited as a functional language. Since Ditchburn et al. discloses all the structural limitations of the apparatus claimed in claim 12, Ditchburn et al. meets the claim. See MPEP, section 2114.

Ditchburn et al. fails to specifically disclose a sequence of frames in said motion picture medium adapted to be viewable by a human. However, Astle teaches an apparatus which produces the illusion of motion from a sequence of still images, in which a sequence of images is to be displayed depicting a moving scene (figure 1, column 2, lines 10-20, column 3, line 60 – column 4, line 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. by the teaching of Astle in order to allow an user views a captured scene.

Regarding claims 14, 19, 28, Ditchburn et al. discloses each camera from said array of cameras comprises a video camera (electronic viewers 5, Figures 1-2, Column 3, Lines 37-40, Column 4, Lines 12-15) that electronically records said still image as a video frame.

Regarding claims 15, 20, 24, 29, Ditchburn et al. discloses motion picture medium comprises video storage means (memory 16, Figure 2, Column 4, Line 30).

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Regarding claim 17, Ditchburn et al. discloses a system for producing virtual camera motion in a motion picture medium comprising a two-dimensional array of cameras (electronic viewers 5, Figure 1, Column 3, Lines 37-40) focused on a common scene (a viewing zone, Figure 1, Column 3, Lines 37-40); means for triggering (light curtain 3 triggers a strobe for signaling the electronic viewers 5 simultaneously capture the objects, Figure 1, Column 3, Lines 27-36) each of said cameras to simultaneously capture a time sequence of still images of said scene in plurality of video cameras; means for transferring said still images from a selected sequence of said cameras in a selected path in said two-dimensional array to produce a sequence of frames in said motion picture medium (the sequence of frames in the motion picture medium takes place during the scanning (by scanner 13) of the images of the object taken by electronic viewers 5 (Figure 2, Column 4, Lines 27-28).

The feature “creating the illusion that a single camera has moved along the path of said array of video cameras” is recited as a functional language. Since Ditchburn et al. discloses all the structural limitations of the apparatus claimed in claim 22, Ditchburn et al. meets the claims. See MPEP, section 2114.

Ditchburn et al. fails to specifically disclose a sequence of frames in said motion picture medium adapted to be viewable by a human. However, Astle teaches an apparatus which produces the illusion of motion from a sequence of still images, in which a sequence of images is to be displayed depicting a moving scene (figure 1, column 2, lines 10-20, column 3, line 60 – column 4, line 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. by the teaching of Astle in order to allow an user views a captured scene.

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Regarding claim 22, Ditchburn et al. discloses a system for producing virtual camera motion in a motion picture medium comprising an array of cameras (electronic viewers 5, Figure 1, Column 3, Lines 37-40) focused on a common scene (a viewing zone, Figure 1, Column 3, Lines 37-40); means for triggering (light curtain 3 triggers a strobe for signaling the electronic viewers 5 simultaneously capture the objects, Figure 1, Column 3, Lines 27-36) each of said cameras to simultaneously capture a time sequence of still images of said scene in plurality of video cameras; a processor (computer 12, Figure 2, Column 4, Lines 27-28) receiving said video frames from said video cameras and generating said motion picture medium containing said still images from a series of said video frames (the motion picture medium containing the still images takes place during the scanning (by scanner 13) of the images of the object taken by electronic viewers 5 (Figure 2, Column 4, Lines 27-28)).

The feature “creating the illusion that a single camera has moved along the path of said array of video cameras” is recited as a functional language. Since Ditchburn et al. discloses all the structural limitations of the apparatus claimed in claim 22, Ditchburn et al. meets the claims. See MPEP, section 2114.

Ditchburn et al. fails to specifically disclose generating said motion picture medium adapted to be viewable by a human. However, Astle teaches an apparatus which produces the illusion of motion from a sequence of still images, in which a sequence of images is to be displayed depicting a moving scene (figure 1, column 2, lines 10-20, column 3, line 60 – column 4, line 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. by the teaching of Astle in order to allow an user views a captured scene.

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Regarding claim 25, Ditchburn et al. discloses said array of video cameras is two dimensional (Figure 1, two dimensional array of viewers 5).

Regarding claim 26, claim 26 is a method claim of apparatus claim 12. Therefore, claim 26 is rejected for the reason given in claim 12, except the feature “creating the illusion that a single motion picture camera has moved along said path,” which is recited as a functional language, is inherently disclosed in Ditchburn et al. The act of simultaneously taking a picture with multiple cameras and outputting the pictures sequentially inherently achieves this effect.

Regarding claim 31, Ditchburn et al. discloses a system for creating virtual camera motion comprising:

a) an array of video cameras (electronic viewers 5, Figure 1, Column 3, Lines 37-40) deployed along a path with each video camera focused on a common scene (a viewing zone, Figure 1, Column 3, Lines 37-40), the array comprising a plurality intermediate video cameras between a first video camera (the first viewer 5 on the upper side of the path with nine viewers 5, Figure 2) and a second video camera along the path (the last viewer 5 on the lower side of the path with nine viewers, Figures 1-2, Column 3, Lines 37-40);

b) a control system (computer 12, Figure 2, Column 4, Lines 27-30) associated with the array of video cameras and adapted to:

i) receive video from at least the first and second video cameras (computer 12 receives video from viewers 5, Figure 2, Column 4, Lines 27-30);

ii) select a first portion of video from the first camera ending at a first

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time (computer 12 receives video from the first viewer 5 at a first time via scanner 13, Figure 2, Column 4, Lines 27-30);

iii) select a second portion of video from the second video camera beginning at a second time (computer 12 receives video from the last viewer 5 at a second time via scanner 13, Figure 2, Column 4, Lines 27-30);

iv) select images from the plurality intermediate cameras corresponding to a time equal to or between the first and second times (computer 12 receives video from intermediate viewer 5 between the first viewer 5 and the last viewer 5 via scanner 13, Figure 2, Column 4, Lines 27-30);

v) create a resultant video providing a video sequence of the first portion of video, a sequence of the images from the plurality of intermediate cameras, and the second portion of video (a video sequence of the first portion of video and the second of video takes place during the sequential of the scanning of the images captures by viewers 5, Figure 2, Column 4, Lines 27-30).

The feature “creating an illusion of that a single camera remained still during the first portion of video at a position of the first video camera and moved along the path to a position of the second video camera for the second portion of video” is recited as a functional language. Since Ditchburn et al. discloses all the structural limitations of the apparatus claimed in claim 31, Ditchburn et al. meets the claim. See MPEP, section 2114.

Ditchburn et al. fails to specifically disclose to create a resultant video adapted to be viewable by a human. However, Astle teaches an apparatus which produces the illusion of motion from a sequence of still images, in which a sequence of images is to be displayed

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depicting a moving scene (figure 1, column 2, lines 10-20, column 3, line 60 – column 4, line 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. by the teaching of Astle in order to allow an user views a captured scene.

As for claim 34, all the limitations are contained in claim 31, therefore, claim 34 is rejected for the reason given in claim 31.

Regarding claim 37, claim 37 is a method claim of apparatus claim 34. Therefore, claim 37 is rejected for the reason given in claim 34, except the feature “creating an illusion of that a single camera remained still during the first portion of video at a position of the first video camera and moved along the path to a position of the second video camera for the second portion of video” which is recited as a functional language, is inherently disclosed in Ditchburn et al.

Regarding claims 32, 35, 38, Ditchburn et al. discloses wherein the first and second times are equal and the select images from the plurality of intermediate cameras correspond to the first and second times to create an illusion that time has stopped during the illusion of the single camera moving from the first position to the second position (Ditchburn et al. all the viewers 5 are trigger simultaneously (Figure 1, Column 3, Lines 25-30), therefore, the first time at which the portion of video from the first viewer 5 (on upper part, Figure 2) and the second time at which the portion of video from second viewer 5 (on lower part, Figure 2) are equal.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 11, 13, 16, 18, 21, 23, 27, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditchburn et al. (U.S. 5,184,732) in view of Astle (US 4,698,682) further in view of Collender (U.S. 3,815,979).

Regarding claims 13, 18, 27, Ditchburn et al. and Astle fail to specifically disclose each camera from said array of cameras records said still image on photographic film. However, Collender teaches images captured by cameras 1 through n are recorded on film (Figure 1, Column 3, Lines 43-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. and Astle by the teaching of Collender in order to store the captured images on photographic film. This allows the recording an image at a high resolution and produces a standard television signal from photographic film, in which the signal is free from visible flicker.

Regarding claims 7, 11, 16, 21, 23, 30, Ditchburn et al. and Astle fail to specifically disclose said motion picture medium comprises motion picture film. However, Collender teaches pictures may be recorded on ordinary motion picture film (Figure 1, Column 6, Lines 58-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. and Astle by the teaching of

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Collender in order to store the captured images on photographic film. This allows the recording an image at a high resolution and produces a standard television signal from photographic film, in which the signal is free from visible flicker.

7. Claims 33, 36, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ditchburn et al. (U.S. 5,184,732) in view of Astle (US 4,698,682) further in view of Wilkinson et al. (U.S. 4,453,182).

Regarding claims 33, 36, 39, Ditchburn et al. and Astle fail to specifically disclose wherein the first and second times differ by a time period and the select images from the plurality of intermediate cameras correspond to different times throughout the time period to create an illusion that time has slowed during the illusion of the single camera moving from the first position to the second position. However, Wilkinson et al. a television system, which includes plurality of video cameras, the cameras are sequentially triggered by a sequential switch 40 (Figures 1-3, Column 3, Lines 50-59, Column 4, Lines 44-55, Column 5, Line 28 through Column 6, Line 57). This shows that the first time and second times differ by a time period. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Ditchburn et al. and Astle by the teaching of Wilkinson et al. in order to provide a system which forms images at a greater speed than that presently possible from a single camera and permits the forming of images virtually one right after the other (Column 3, Lines 22-28).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571) 272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
02/19/07



**LUONG T. NGUYEN
PATENT EXAMINER**